

ABSTRACT

A Cold Cathode Fluorescent Lamp (CCFL) is enclosed within a bulb normally used for incandescent fixtures. The CCFL is bent into a u-shape to fit within the bulb and the ballast can be installed in the lamp base. In an alternative embodiment, one or more CCFLs is enclosed within a fluorescent lamp tube or bulb with bi pin end caps. An insert in the end cap can support the CCFLs. Contact is made to the CCFLs through a connection with the pins of the end caps. In an alternative arrangement, the CCFLs are supported within the tube by electrode wires connecting to the pins.